In the claims

1. (Currently Amended) A client-server computer system comprising:

at least one client application server that utilizes data in a form other than an initial form and generates a manipulation request for manipulation of the data from the initial form wherein the request includes the data in the initial form;

an application server accessible by a plurality of client application servers via a plurality of application software protocols, wherein said application server provides a data manipulation service on the data received from the client application server in response to receiving the manipulation request from the client application server, ~~and~~ wherein the data manipulation service causes a change to the data to the form other than the initial form and returns the changed data to the same client application server that requested the manipulation, and wherein the data manipulation includes changing characters of a portion of the data from one case to another case and changing a date within a portion of the data from a year representation of a first set of digits to a year representation of a second set of digits; and

a storage mass coupled to said application server for storing a system of dynamically maintainable manipulation functions for performing said manipulation service.

2. (Previously Presented) A client-server computer system according to claim 1, wherein said storage mass comprises a database.

3. (Original) A client-server computer system according to claim 1, wherein said manipulation functions are represented by a storage schema in the form of Lightweight Directory Access Protocol.

4. (Previously Presented) A client-server computer system according to claim 2, wherein said database contains a table-based system of rules organized into at least three hierarchically organized views.

5. (Original) A client-server computer system according to claim 3, wherein the storage schema represented by Lightweight Directory Access Protocol represents a table-based system of rules organized into at least three hierarchically-organized views.

6. (Previously Presented) A client-server computer system according to claim 2, wherein said database stores manipulation functions stored as hierarchically-organized views that are dynamically updateable by an external administrator.

7. (Original) A client-server computer system according to claim 3, wherein said storage schema in the form of Lightweight Directory Access Protocol represents manipulation functions stored as hierarchically-organized views that are dynamically updateable by an external administrator.

8. (Previously Presented) A client-server computer system according to claim 4, wherein said application server and said database are centrally located to said plurality of client application servers and said manipulation functions are maintainable by a remote administrator.

9. (Original) A client-server computer system according to claim 5, wherein said application server and said storage schema in the form of Lightweight Directory Access Protocol are centrally located to said plurality of client application servers and said manipulation functions are maintainable by a remote administrator.

10. (Currently Amended) An application server comprising:

a plurality of client application servers, each client application server utilizing data in a form other than an initial form that the data is in and generating requests for manipulation of the data to the form other than the initial form wherein the requests include the data in the initial form;

means for performing manipulation services in response to manipulation requests from said plurality of client application servers where each client application generates a separate request, said means for performing manipulation services being coupled to said

plurality of client application servers and the means for performing the manipulation services causing a change to the data that is received from each client application server to the form other than the initial form and returning the changed data to ~~each~~ the same client application server that requested the manipulation; and

means for storing and dynamically maintaining a hierarchically-organized system of a table-based system of manipulation rules coupled to said means for performing manipulation services wherein the manipulation rules are implemented by the means for performing manipulation services in order to change the data prior to returning it to each client application server.

11. (Previously Presented) A client-server computer system according to claim 10, wherein said means for storing manipulation rules comprises a database.

12. (Original) A client-server computer system according to claim 10, wherein said manipulation rules are stored in a schema in the form of Lightweight Directory Access Protocol.

13. (Previously Presented) A client-server computer system according to claim 11, wherein said database contains a table-based system of rules organized into at least three hierarchically-organized views.

14. (Original) A client-server computer system according to claim 12, wherein said schema in the form of Lightweight Directory Access Protocol represents a table-based system of rules organized into at least three hierarchically-organized views.

15. (Previously Presented) A client-server computer system according to claim 11, wherein said database stores manipulation functions stored as hierarchically-organized views that are dynamically updateable by an external administrator.

16. (Original) A client-server computer system according to claim 12, wherein said storage schema in the form of Lightweight Directory Access Protocol represents

manipulation functions stored as hierarchically-organized views that are dynamically updateable by an external administrator.

17. (Previously Presented) A client-server computer system according to claim 13, wherein said means for performing manipulation services and said database are remotely located to said plurality of client application servers and wherein said manipulation rules are maintainable by a remote administrator.

18. (Original) A client-server computer system according to claim 14, wherein said application server in the form of Lightweight Directory Access Protocol are remotely located to said plurality of client application servers and further comprises means for maintaining said manipulation functions.

19. (Currently Amended) A system for providing an application service, the system comprising:

an application server that receives requests for data manipulation and that performs data manipulation to change data to a form other than an initial form and returns the changed data to a same application that requested the data manipulation;

a plurality of applications coupled to the application server, the plurality of applications utilizing the data in the form other than the initial form that the data is in prior to manipulation and each application sending the data in the initial form to the application server with ~~the~~ a separate request by each application for data manipulation;

one or more application programming interfaces, the one or more application programming interfaces for coupling said plurality of applications and said application server and for passing the data manipulation requests and data via a plurality of computer network protocols; and

at least one dynamically maintainable data schema coupled to said application server for providing access to data manipulation functions employed by the application server to cause the change to the data.

20. (Previously Presented) A client-server computer system according to claim 19, wherein said data schema is at least partially in the form of a database.

21. (Original) A client-server computer system according to claim 19, wherein said data schema comprises manipulation functions at least partially in the form of Lightweight Directory Access Protocol.

22. (Original) A client-server computer system according to claim 20, wherein said data schema contains a table-based system of rules organized into a plurality of hierarchically-organized views.

23. (Original) A client-server computer system according to claim 21, wherein a data schema in the form of Lightweight Directory Access Protocol represents a table-based system of rules organized into a plurality of hierarchically-organized views.

24. (Original) A client-server computer system according to claim 20, wherein said data schema stores manipulation functions stored as hierarchically organized views.

25. (Original) A client-server computer system according to claim 21, wherein said schema in the form of Lightweight Directory Access Protocol represents manipulation functions stored as hierarchically-organized views that are dynamically updateable.

26. (Original) A client-server computer system according to claim 22, wherein said application server and said data schema are remotely located to a plurality of client application servers and said manipulation rules are maintainable by a remote administrator.

27. (Original) A client-server computer system according to claim 23, wherein said application server and said Lightweight Directory Access Protocol are remotely located to a plurality of client application servers and said manipulation rules are maintainable by a remote administrator.

28. (Original) The client-server computer system of claim 26, wherein the application passes data to said application server in the form of a string.

29. (Original) The client-server computer system of claim 27, wherein the application server treats data passed to it as a string.

30. (Original) The client-server computer system of claim 28, wherein the application server receives data from said application in the form of a Hashtable.

31. (Currently Amended) A system for providing data manipulation service on based on requests from applications running a plurality of software protocols, the system comprising:

a data network;

an application server, the application server in communication with the data network to receive data within manipulation requests for manipulation of the data and wherein the application server changes the data to a form other than an initial form and returns the changed data to a same application that requested the manipulation in response to the request;

an application that utilizes the data in the form other than the initial form, the application in communication with the application server, the application providing the manipulation requests and data in the initial form to the application server via the data network and receiving the changed data back from the application server;

one or more open application programming interfaces, the one or more application programming interfaces capable of handling a plurality of software protocols in communication with the application server; and

a data schema accessible by said application server in communication with said data network, for storing manipulation functions that are employed by the application server to cause the change to the data prior to returning it to the application.

32. (Previously Presented) A system according to claim 31, wherein said data schema comprises a database.

33. (Original) A computer system according to claim 31, wherein said manipulation functions are stored in the format of a Lightweight Directory Access Protocol.

34. (Previously Presented) A system according to claim 32, wherein said database contains a table-based system of rules organized into hierarchically-organized views.

35. (Original) A system according to claim 33, wherein said schema in the form of a Lightweight Directory Access Protocol represents a table-based system of rules organized into hierarchically-organized views.

36. (Currently Amended) A system for providing an application service, the system comprising:

means for receiving a service request from a customer application computer, the customer application computer requesting data that is in an initial form to be manipulated into a form other than the initial form and passing data to said system in the form of hashtables;

means for sending a manipulation request instruction to an application server corresponding to data in the initial form to be manipulated;

means for sending a service request from the application server to a data base, the service response based at least in part on the manipulation request;

means for performing hierarchically-based manipulation services on the data that is in the initial form to cause a change to the data that places the data in the form other than the initial form;

means for remotely updating said database based on current manipulation requirements of said system;

means for sending a manipulation result including the changed data from the application server to ~~said~~ the same customer application computer that sent the request for manipulation based at least in part on the manipulation request; and

means for providing a response to said system from said customer application computer in response to said manipulation result.

37. (Currently Amended) A computer-readable medium storing a plurality of instructions adapted to be executed by a processor for providing an application service, the plurality of instructions comprising instructions to:

receive a service request from a customer data device, the customer data device including data that is in an initial form to be manipulated into a form other than the initial form;

generate a service session instruction, the service session instruction based at least in part on the service request;

send the service session instruction to one or more open application programming interfaces, the service session instruction corresponding to one or more data manipulation requests from said customer data device;

perform one or more manipulation functions based on stored rules in a data base to change the data from the initial form to the form other than the initial form; and

send a manipulation service response to the same customer data device that provided the request where the response ~~that~~ includes the changed data, and the manipulation service response being based on the service request.

38. (Previously Presented) A medium according to claim 37, wherein said database comprises a database and further comprises an instruction to load said database into a memory upon startup of said application service.

39. (Original) A medium according to claim 37, wherein said manipulation functions are stored at least partially in the format of Lightweight Directory Access Protocol and further comprise an instruction to load said database into a memory upon startup of said application service.

40. (Currently Amended) A method of providing manipulation data service with a client-server computer system comprising the steps of:

coupling a data manipulation request between a client application server and an application server, the data manipulation request including data in an initial form that is to be changed to a form other than the initial form for use by the client application server;

providing data manipulation service request instructions to a data schema in response to said manipulation request coupled between said client application server and said application server;

retrieving a plurality of hierarchical dynamically maintained manipulation rules from a centralized storage mass coupled to said application server, the manipulation rules for changing the data from the initial form to the form other than the initial form;

manipulating data in accordance with said manipulation rules; and

coupling a response that includes the changed data to ~~said~~ the same client application server that provided the request for manipulation.

41. (Currently Amended) A method for providing an application service, the method comprising:

a step for sending a data manipulation service request from a user computer, the data manipulation request including data of an initial form that is to be changed to a form other than the initial form;

a step for generating a manipulation service instruction, the service instruction based at least in part on a manipulation service request from said user computer;

a step for sending the service instruction to one or more data storage schemas via one or more application programming interfaces, the service instruction corresponding to one or more manipulation requests from the user computer;

a step for dynamically updating a table of manipulation rules stored in said one or more data schemas based on changes to the application service;

a step for calling up at least one table of manipulation rules from said one or more data storage;

a step for performing manipulation functions on data in accordance with updated manipulation rules stored in said table and the manipulation request from said user computer to change the data from the initial form to the form other than the initial form; and

a step for sending service response that includes the changed data to the same user computer that requested the ~~requesting~~ manipulation service.